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ABSTRACT

IMPROVEMENTS IN OR RELATING TO A  
BLADE TIP CLEARANCE SYSTEM

A pressure actuated tip clearance system for a shroud structure of a gas turbine engine rotary stage includes an annular plenum chamber formed between an annular arrangement of a plurality of shroud liners on the inner circumference of the chamber and a generally cylindrical casing on the radially outer side, and, in use, a hot gas stream radially inwards of the shroud liners. Each shroud liner comprises a hollow box section comprising upstream and downstream walls, radially inner and outer walls, and side walls, the downstream and radially inner and outer walls being closed, the upstream wall having an air inlet aperture, and at least one of the side walls having at least one outlet aperture. The inlet aperture is in flow communication with a source of high pressure air at a pressure higher than that of the gas stream.

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